SECTOR UPDATE

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Tech Team

Jongwook Lee
Team Leader
jwstar.lee@samsung.com

Richard Moon
Senior Analyst
joonho.moon@samsung.com

JiHyeon Seo
Analyst
jihyeon.seo@samsung.com

Seungho Jeong
Research Associate
seungho1.jeong@samsung.com

Kyoungbeen Kim
Research Associate
kyoungbeen.kim@samsung.com

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Tech (OVERWEIGHT)

SGIC tech-team takeaways: AI clients' FOMO buying

- Cloud companies' AI-driven FOMO spending is reshaping the supply chain's bargaining power, structurally altering value distribution across the industry.
- While overseas investors view memory valuations as burdensome, we believe the sector is in a mid-stage re-rating phase.

WHAT'S THE STORY?

Samsung Global Investor Conference (SGIC) was held over May 12-15. We were fortunate to have—along with hundreds of international investors and dozens of firms—front-row seats to the historic semiconductor stock rally.

- **AI-driven FOMO spending reshaping supply chain's bargaining power:** Fearing that they may be left behind in the AI race, cloud providers have adopted a wave of aggressive procurement strategies—*eg*, adopting contract structures previously uncommon, such as long-term agreements (LTAs), advance payments, co-investments, and long-term purchase commitments. Notably, suppliers' behavior has shifted dramatically. In the past, pricing increases were carefully weighed against the risk of customer attrition. Today, suppliers are prioritizing pricing strategies to identify which customers to effectively exclude. As a result, pricing pressure has risen significantly. AI is not merely driving up demand—it is fundamentally restructuring bargaining dynamics across the entire industry.
- **Investor valuation concerns:** The investors we met at the conference mostly agreed on the validity of the structural earnings growth potential of memory and AI hardware firms. However, their primary concern has shifted from earnings growth to valuation. Post-ASP surges, questions have moved from cyclical momentum (price hikes) to earnings duration (sustainability). While some argue that P/E ratios remain low, this assumes that today's elevated profit margins will persist over the longer term—something that remains uncertain. Considering such skepticism, investor appetite for a new memory narrative is growing.

(Continued on the next page)

- **MPE and robotics—Separating winners from the rest:** Investors in semiconductor materials, parts, and equipment (MPE) suppliers are now focusing less on simple capacity expansions and more on identifying bottlenecks. Key new momentum drivers—such as cleanroom shortages, advanced packaging, glass substrates, hybrid bonding, and VCT—remain at the center of investors' attention. Robotics is following a similar trajectory. While Korean robotics firms still lack broad global recognition, their strategic value is gaining traction amid heated US-China tech rivalry. Despite valuation burdens, Korean robotics firms' new-growth narratives are drawing keen attention.
- **Our view—rerating underway:** The market still harbors skepticism—the growth narrative simply appears to be too good to be true. Yet it is telling that, despite massive capital flows into the semiconductor sector, some negative investor sentiment remains.

In light of this, we believe the sector is mid-way through staging a rerating. In the AI era, the value-added sales portion (*ie*, sales generated by memory and hardware) is structurally increasing, and the market has yet to fully reflect this. As new AI services and narratives emerge, the rerating of hardware providers' valuations will likely continue.

FOMO buying by cloud providers

The AI race has moved beyond mere server expansion cycles, triggering FOMO spending by cloud service providers (CSPs). During past uptrends, hyperscalers made aggressive investments under broad thematic banners such as 'streaming services' or 'the metaverse'. But this time is different: CSPs view this upturn (the AI infrastructure cycle) as being defined by longer investment horizons, faster technological changes, and more urgent survival pressure. This semiconductor cycle has not merely been powered by CSPs' increased capex, it has become deeply intertwined, with a pervasive industry-wide fear of falling behind in the AI race. In other words, FOMO buying across the supply chain is now embedded in the semiconductor cycle.

Having experienced memory shortages, CSPs have begun strategically managing not just their component procurement but also their procurement of everything else in-between—from substrates and power systems to networking components and critical raw materials. As a result, risk-sharing models such as long-term agreements (LTAs), advance payments, and co-investments are no longer confined to the memory segment, with such models becoming more common across the broader tech industry. Unprecedented, aggressive procurement tactics are emerging—*eg*, factory-construction subsidies, long-term purchase commitments, and even entrusted payment arrangements.

Cloud customers prioritizing supply over hardware pricing

Source: ChatGPT, Samsung Securities

Supplier ambivalence: Hope mixed with skepticism

CSPs' aggressive procurement strategies are reshaping supplier behavior. One of the most intriguing shifts is in suppliers' pricing strategies. Traditionally, suppliers hesitated to raise prices for fear of losing their customers. While these concerns still exist, the goal has changed—suppliers are now intentionally lifting prices to push legacy clients out of the market. With AI driving massive, guaranteed purchase commitments, suppliers are prioritizing capacity allocation to their AI customers, deliberately sidelining non-AI firms. This phenomenon is visible across suppliers of DRAM, NAND, foundry, substrates, and passive components. The semiconductor market is no longer in a simple state of supply-demand imbalance—the imbalances increasingly reflect structural realignment.

AI is reshaping the entire industry's negotiating power dynamics. Prices of legacy products (vs AI products) have moved first. Suppliers are beginning to treat time as their ally, focusing less on rapid price hikes and more on extending the upturn. Yet, with demand no longer constrained, this could lead to even more disruptive price inflation.

Still, suppliers remain hesitant towards expanding capacity. Despite this robust upturn, we see none of the aggressive capex enthusiasm observed in 2017 or 2021. Samsung Electronics (SEC) and SK Hynix agree on the long-term growth potential of AI-driven memory but remain cautious towards expanding capacity due to capex scale and execution risks. While cleanroom shortages remain a key bottleneck, the process of building factories, installing equipment, and hiring talent has become significantly slower and more complex. Moreover, as AI's capacity demands (*eg*, HBM) grow exponentially, even increased capex may not translate to proportional bit shipments. This suggests the potential for prolonged supply shortages and extended periods of excess memory profits that could far exceed current expectations.

Investor valuation anxiety

Investors broadly acknowledge the tailwinds for the memory and hardware sectors. But they are deeply uneasy about the surge in share prices.

Notably, over the past week, few questions have been asked about recent memory price increases or the operating profit figures of SEC and SK Hynix. Just one quarter ago, investors were obsessed with the latest price trends. Now, the focus has shifted from price momentum to price sustainability. The changes we expected to see by the end of May (as outlined in our 2026 industry outlook report, which was published at end-2025) have already materialized.

Now, the primary concern among investors is valuation. The rapid stock price run-ups have created a significant valuation gap (vs historical multiples), creating discomfort. As one investor put it, “My heart says hold, but my head says sell.” This tension has intensified the demand for new narratives. Particularly among semiconductor materials and equipment investors, there is growing appetite for new growth stories: 3D DRAM, glass substrates, and hybrid bonding. Investors believe that if this upturn continues, new fundamentals will emerge to justify valuations. Yet, the fear of missing out on these catalysts is palpable.

Is P/E the right metric? No investor is unaware that current P/E ratios are low. But to justify the outlook for a hike in P/E figures, one must believe that 75% operating margins for commodity DRAM will be sustained. Higher P/Es would also require conviction for earnings sustainability (a core premise of P/E valuations), which we find uncomfortable and are skeptical towards.

Semiconductor MPE suppliers: Capacity expansion timelines and emerging narratives

During meetings with semiconductor materials, parts, and equipment (MPE) suppliers, the primary topics were capacity-expansion timelines and emerging narratives. None of the investors we met denied that the semiconductor is in an upturn nor that capacity expansions are needed. The main issue is the bottleneck for cleanrooms. The questions now are: How much earlier can SK Hynix's Y1 and SEC's P5 fab cleanrooms realistically be brought online? And when will Micron's Idaho fab open? Investors were eager to understand how to view capacity-expansion timelines starting next year and how large and intense the capacity increases will be—they sought to gauge firms' future earnings potential (from 2H27). There was a clear sense that investors are already looking ahead to 2028, which may reflect their diminishing concerns over valuation premiums.

Meanwhile, with expectations for DRAM capacity expansions now mostly priced in, many investors appeared to be looking for new growth opportunities—NAND has emerged as the most frequently asked topic. No memory or equipment maker has yet signaled any capacity-expansion plans, despite severe NAND supply constraints and its significantly improved profitability (vs that seen in past cycles). The view is that NAND capacity expansions will eventually happen, which expansions should lead to a hike in orders for new equipment. During meetings with MPE suppliers, many asked: 1) if NAND capacity expansions have been paused, how might the transition towards V9/V10 pan out; and 2) whether the number of process steps could be raised through process scaling.

While we acknowledge that MPE suppliers' valuations have become stretched, we expect their earnings outlooks to continue brightening in tandem with memory manufacturers'. With the capex cycle now in full swing, markets are likely to increasingly assign higher value to new-growth opportunities.

Robotics: Proving real-world capabilities

During the Samsung Global Investors Conference, the most compelling topic in robotics was undoubtedly Figure AI's live-streaming demonstration. The robot's task was to orient incoming logistics packages so that their barcodes face downward, enabling smooth recognition by scanners on the floor. With a four-hour battery life, the robot autonomously requests a handoff when power runs low. Once the request is received, another robot takes over the task, while the first navigates to a charging station to recharge. This livestream is still running in real time. Some investors questioned the significance of what appears to be a trivial task, but this live demonstration is highly meaningful because it directly addresses many of the market's and consumers' doubts. It not only dispels concerns that the demo could be prerecorded or edited, but also demonstrates that hardware challenges inherent in real-world robot operation—such as thermal management and battery efficiency—can be reliably resolved.

Also impressive was the breakthrough in intelligence. Figure AI CEO Brett Adcock confirmed to Bloomberg that no teleoperation was used. Instead, the robot operated entirely on board, using only its internal edge-computing chip powered by Figure's proprietary Helix 02 architecture, with no cloud or external server support. It completed each task in approximately three seconds, matching human speed, while achieving a barcode scanning success rate of over 90%. Although occasional errors occurred, the fact that the system performed live under unpredictable and dynamic conditions demonstrated Figure AI's confidence in its stability.

This achievement points to the successful lightweighting of a vision-language-action (VLA) model for edge-computing environments. It provides a clear answer to investors' question: "Is today's edge-computing chip performance sufficient to power robots?" The robot no longer relies on external servers or the cloud, solving key issues such as communication delays, signal noise in rough or shadow-heavy warehouses and factories, and the burden of building separate large-scale infrastructure. It marks the first real-world example showing that robots can be deployed immediately on site.

Figure AI: Processing 100,000 packages in 86 hours

Note: As of May 17, 5PM(KST)
Source: YouTube

Figure AI: Proprietary Helix 02 architecture

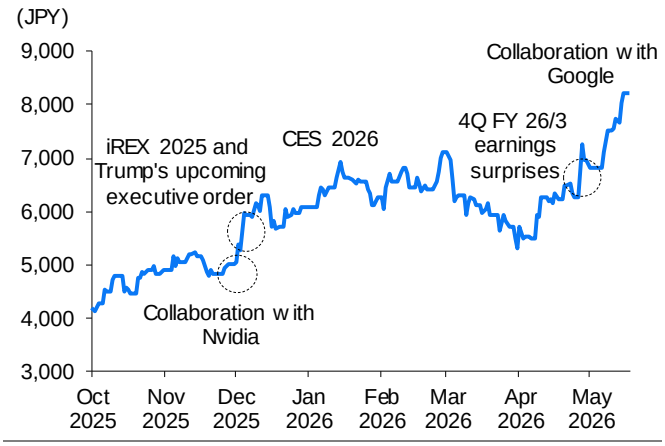
Source: Figure AI

‘Real-world operability’ is key

During the conference period, global robotics sector also generally performed well. In China, expectations for real-world robotics adoption surged following Figure AI’s live demonstration, driving gains primarily among component suppliers such as Leaderdrive, which rose 15.3%, and Hengli Hydraulic, which rose 6.4%. In Japan, Fanuc stood out as its partnerships with global tech giants became more concrete.

On May 13, Fanuc announced a strategic collaboration with Google to integrate generative AI and physical AI into industrial robots. The system will leverage Google’s Gemini Enterprise, Google Cloud infrastructure, and Intrinsic (Google’s robotics software subsidiary) to enable human operators to issue verbal commands that robots will autonomously interpret, identify objects, and coordinate across multiple units without human intervention. Fanuc plans to unveil the system at its upcoming product showcase in May. Then, on May 15, the Japanese company further strengthened investor confidence by announcing upgrades to its Nvidia-powered robotics platform, first introduced at last December’s iREX exhibition. This underscores a critical point: market interest in robotics is no longer confined to humanoid robots. The real catalysts for share-price performance are: 1) practicality—immediate deployability in real manufacturing environments; and 2) measurable efficiency gains achieved through strategic alliances with leading technology companies.

Fanuc: Share-price performance



Source: Bloomberg

Fanuc: Collaboration with Google

Source: Company data

Investment strategy for the robotics sector

In this evolving landscape, the path to identifying true winners is clear: the market will increasingly reward only companies that can demonstrate both consistent, long-term operational reliability and proven real-world deployability. Figure AI's live demo served as a turning point. Companies unable to show tangible, on-site capabilities now risk falling behind. This is no longer a distant future scenario—it is unfolding now. Leading global players are actively proving their capabilities. Notably, Western heavyweights such as 1X Technologies and Figure AI recently opened their production facilities to the public, reaffirming concrete timelines for mass-production. When industry leaders commit to firm production schedules, this signals an imminent ripple effect across core component suppliers and the broader supply chain. The robotics sector therefore warrants investor attention.

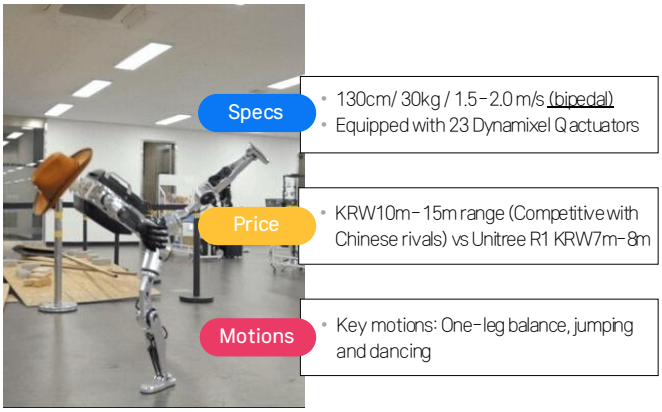
A shift in domestic narratives: Transformation for survival

As leading global players sharply raise market expectations by proving their capacity for mass-production and real-world deployment, overseas investors remain skeptical of Korean robotics companies. In meetings with such investors, we found that the most consistent concern is valuation. Both Korean and Chinese robotics stocks are viewed as overly speculative, with prices disconnected from underlying fundamentals. Investors increasingly believe that separating true winners from the rest is essential. Even top Chinese robotics companies such as Unitree face significant valuation burdens at home. Korean players are perceived as an even lower priority. Moreover, while Chinese robotics firms are now well known among global investors, awareness of their Korean counterparts remains quite low.

That said, there is broad consensus that Korean companies stand to benefit from the US-China tech rivalry. The challenge now is to turn this favorable narrative into tangible investment appeal. To do so, Korean firms must articulate clear, credible strategies that directly address their current valuation burdens. In this context, it is encouraging that the narratives for Korean companies have recently begun to change.

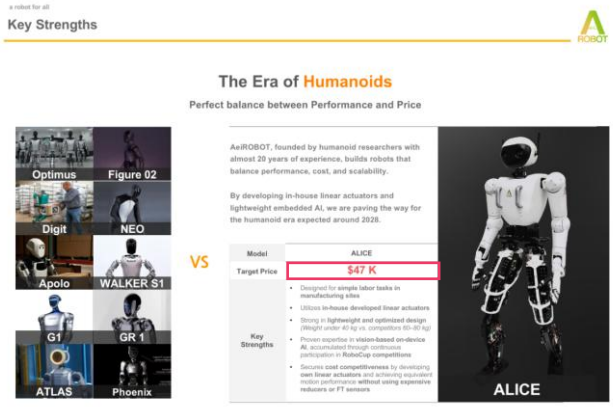
For years, Korean robotics firms have positioned themselves by emphasizing faster delivery and superior after-sales service compared to Chinese competitors. However, at this year's Samsung Global Investors Conference, some Korean companies made a strong impression by openly competing on price and directly challenging Chinese rivals. This shift is striking, especially given that most listed Korean robotics firms are hardware-focused, where cost competitiveness is non-negotiable. Ultimately, reducing hardware costs through proprietary design or vertical integration will be the defining competitive advantage. Korean firms must either match China's pricing head-on or secure a unique technological edge. If dramatic cost reductions are not feasible in the short term due to supply chain constraints, the most viable path may be to focus on North America, where customers are more willing to accept higher prices.

Robotis: AI Sapiens, a bipedal humanoid priced at KRW10m-15m



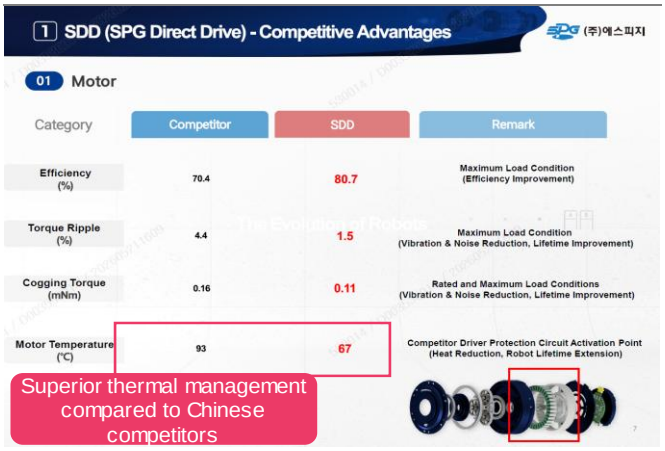
Source: Company data

Aeirobot: Humanoid robot ALICE, priced at USD47,000



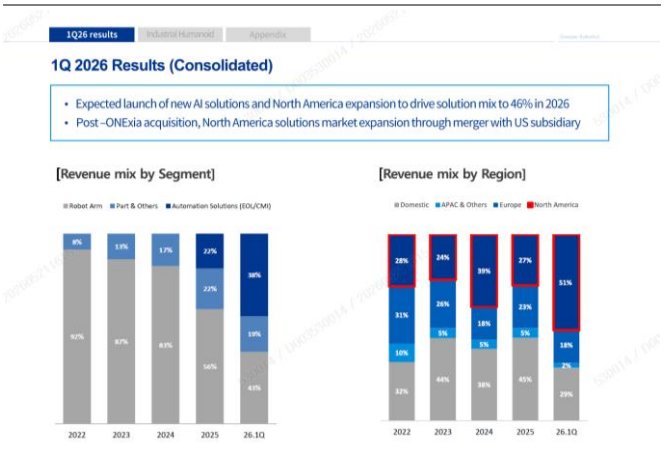
Source: Company data

SPG: Advantages of proprietary SDD actuator



Note: Company data, Samsung Securities

Doosan Robotics: Targeting North American market with acquisition of ONExia



Note: Company data, Samsung Securities

Conclusion: Tech sector's price peak still distant

The market lacks the conviction to declare that the cycle has peaked just yet. Instead, there exists a tension between unease ('this is too good to be true') and hunger (for a new narrative to justify valuations). While stock prices have surged, investor sentiment has not become overwhelmingly positive. There are, of course, investors who passionately express confidence in the validity of the industry's growth through 2030 and the durability of long-term agreements. The market will likely peak when conviction becomes widespread. For now, bullish voices have yet to set the tone.

We view this phase not as the late stage of an AI infrastructure cycle, but as its mid-point—valuation re-ratings are in progress. Each time earnings prove durable and structural, and each time a new AI service narrative emerges, investors will likely conclude that hardware valuations must reset higher. Memory and hardware remain cyclical industries by nature. But in the AI era, memory and hardware's share of system-wide value creation has risen structurally, and this shift is likely to endure for far longer than most expect.

Key company and session review

Keynote session: The turning point of the DRAM industry (Dr. Jeongdong Choe, TechInsights)

- **Paradigm shift in DRAM:** The DRAM market has fully transitioned from the traditional 3- to 4-year cycle (driven by PC and mobile demand) to a structural megacycle (which is being led by data centers and AI). Demand for data-center DRAM is projected to grow 30-31% *pa*, accounting for approximately 70% of total DRAM demand in 2031. Even if memory-price adjustments occur due to oversupply, a price collapse (as seen in past downturns) would be unlikely.
- **Structural supply shortages:** The DRAM market is in a 5% supply deficit, and should remain in a deficit through late 2027 to mid-2028, primarily due to cleanroom constraints and capacity consumption (by HBM). However, long-term supply risks remain due to CXMT's (China) aggressive capacity-expansion plans and rapid technological catch-up.
- **Importance of technologies overcoming limits of semiconductor miniaturization:** The future of DRAM technology should hinge on control over HBM and structural shifts in front- and back-end processes. Hybrid copper bonding is expected to be introduced in 2028. By 2028-2029, next-generation DRAM architectures—such as $4F^2$ (led by SEC) or 3D DRAM (led by SK Hynix and Micron)—should emerge. The ability to stabilize mass-production of these new technologies should become the core differentiator.

SEC

- With the full-scale ramp-up of HBM4, SEC aims to generate over 50% of its DRAM revenue from HBM4 from 3Q, while concurrently accelerating its market-share recovery through HBM4e sampling. At the same time, the company is expanding LTAs for server DRAM to enhance demand visibility—LTA volume should meaningfully increase from 2027. Due to capacity allocation leaning heavily towards HBM, commodity DRAM supply growth should remain limited through 2027, potentially making the DRAM supply-demand balance even tighter next year.
- NAND supply shortages remain high. However, due to its lower profitability (vs DRAM's), limited technological differentiation (between products made by different companies), and intense competition, NAND investments should remain a lower priority in the near term. SEC is focusing on transitioning to 9th-generation V-NAND.
- For its foundry business, the company is seeking to begin mass-production of silicon photonics using legacy nodes in 2H, aiming to break even by year-end. However, due to an initial depreciation burden (stemming from the Taylor fab (US) being ramped up), the division's annual profitability should remain lackluster until 2028.

SK Hynix

- Structural DRAM supply shortages are likely to persist through 2028, with price momentum expected to remain resilient in 2H26. LTA volume (as a portion of its total production) is anticipated to be substantial in the future. In a supply-constrained environment, volume commitments by clients can enhance the supplier's pricing power. Discussions about HBM pricing and volume for 2027 are underway, with HBM4 development progressing as planned.
- The firm's NAND investment plans aim to convert over 50% of its domestic NAND capacity to 321-layer technology by end-2026. Its semiconductor investments remain cautious so far given competition and DRAM capacity constraints.
- Its capex is trending upwards due to the potential early ramp-up of the Yongin cluster, increased packaging & testing (P&T) investments, and its growing EUV adoption. Its shareholder return policy is under review at the group level, with an official announcement expected by year-end following the completion of the US ADR review.

Micron Technology

- Micron Technology is securing stronger, more binding supply commitment agreements (SCAs)—beyond traditional LTAs—to ensure robust sales over the next 3-5 years. This should enable the company to align its supply expansion with demand, helping it remain supply disciplined and maintain a sustainable ROI.
- Micron has stressed that the higher the HBM sales portion, the faster the erosion of commodity DRAM capacity. HBM3e requires 3x the wafers of commodity DRAM, and HBM4e may require up to 4x. Additionally, HBM demands higher-purity cleanrooms and 10-15% more back-end process steps than commodity DRAM.
- The completion date of the Idaho 1 fab has been brought forward by three months, with wafer output now expected from mid-2027 and meaningful volume contributions to begin in 2028. The Taiwan PSMC fab is scheduled to be ramped up over late 2027-early 2028, and meaningful bit contributions from new capacity is expected only after late 2027.

SanDisk

- Strong demand from data-center customers has led to the signing of LTAs with five customers ytd (three in 1Q, two in 2Q), covering more than one third of its planned 2027 bit supply. Contract structures include: 1) fixed pricing; and 2) hybrid models (combining fixed and variable pricing—with longer-term contracts featuring higher variable-price components). This structure should enable the company to capture additional upside if prices increase.
- The company has secured financial guarantees totaling USD11b from customers under LTAs. This should help mitigate the high cyclicality of the NAND market and enable stable capacity planning (*ie*, capacity expansions based on customer demand).
- As structural changes reshape the NAND industry, the traditional quarterly price negotiation model no longer appears sustainable. LTAs enable buyers to secure supply visibility and suppliers to secure profitability.

LG Electronics

- The company is aggressively expanding its AI data center cooling solutions, covering both air and liquid cooling, and targeting global big-tech customers. With qualification by key clients in the final stages, its order backlog has tripled y-y. The AI data center cooling solutions business targets KRW1t in sales in 2027.
- To offset soft demand for home appliances and TVs in DMs, the company is expanding its footprint in EMs, scaling up its appliance subscription model and pursuing a premium OLED TV strategy. It has successfully passed on higher costs (stemming from rising raw-material prices and tariffs), helping it maintain profitability.
- Building on its smart factory business, which is already recording sales of KRW1t-2t *pa*, the company is expanding investments in robotics, particularly humanoids. It has established a pilot production line for actuators, combining the motor capabilities of its Changwon facility with commercial products. This pilot line is expected to be started as early as 3Q26.

Samsung Electro-Mechanics

- Strong demand for MLCCs in AI servers—coupled with higher unit content in premium smartphones—has kept the company's utilization high. IT and commodity product prices for distribution channels were recently marked up. Despite a 20% capacity expansion this year, the firm's unit shipment growth remains constrained by the complexity and low yields of advanced MLCCs, which products disproportionately consume production capacity. The tight MLCC supply-demand balance coupled with high profitability (on MLCCs) should persist through 2028.
- The FCBGA business is becoming more profitable thanks to product-mix and yield improvements. Even after raising prices on legacy, lower-margin substrates, the company plans to strategically adjust product mixes for its clients. Demand from North American tech giants—including Amazon and AMD—remains robust. The firm's capex should more than double in 2026, with the majority of this capital likely to be allocated to substrate production. Aggressive capex should continue well into 2027.

LG Innotek

- Demand for FCBGA substrates is rapidly shifting from PC CPUs to AI accelerators. As industry-wide substrate shortages intensify, customers are focusing on securing long-term supplies through making volume commitments and advance payments. The trend towards larger, higher-layer substrates for AI servers is further straining capacity. To meet rising demand for existing RF-SiP and FCCSP products as well new demand for FCBGA, LG Innotek plans to increase capex for its packaging solutions division this year.
- Despite concerns that rising smartphone component costs (*eg*, memory) may dampen overall market growth, the optical solutions division reported remarkable 1Q results, driven by stronger-than-expected shipment volumes by its key customers in North America. Its ASP should move higher on: 1) a rising sales portion of Pro and Pro Max camera models; and 2) increased adoption of variable aperture camera modules.

Yageo

- Yageo's earnings growth is being driven by tantalum capacitors and registers, fueled by expanding AI server demand. Rising power requirements from AI servers are boosting demand for aluminum capacitors in the 48V rail and tantalum capacitors in the 12V rail.
- In 1Q26, AI-related sales accounted for around 15% of its total revenue. Faced with rising raw-material costs, Yageo is currently negotiating MLCC price increases with its major customers—meaningful price hikes are expected to take effect around 2Q-3Q26.
- While its MLCC capex remains limited, Yageo is planning to significantly increase its R&D investments in high-voltage MLCCs and expand its offerings towards total passive component solutions.

HPSP

- As semiconductor investment timelines have accelerated, HPSP has secured more orders than expected across all applications since the start of the year. That advanced foundry capacity in North America is expanding is a positive sign. Although HPSP is still widely viewed as a foundry-related name, it should continue to benefit from DRAM capacity additions, while NAND-related revenue is also expected to begin materializing. Meanwhile, new pilot equipment ordered by new customers last year is set to ship this year, supporting revenue source diversification.

Soulbrain

- While Soulbrain should benefit from memory capacity additions, reduced wafer input during the tech migration period is likely to cause headwinds in the near term. For materials suppliers, the absolute wafer input volume matters—so growth may be delayed until 2027, when new lines fully ramp up to mass-production. Some rumors have suggested that Soulbrain has cancelled its Taylor expansion plan in the US, but this is not the case. The plan is undergoing design changes but has not been cancelled. Its client-based diversification strategy will be highly relevant in 2028 and beyond.

Eugene Technology

- With all DRAM customers accelerating capacity additions, the market is growing rapidly. At the same time, the outlook for Eugene Technology is improving as the firm is becoming involved in more steps of the chipmaking process, including ALD. Although there is also significant market interest in the timing of NAND capacity additions, DRAM investment is still expected to take priority, which is positive for Eugene Technology given that it makes equipment mostly for DRAM (90-95% of its business). There is also strong interest in the company's epi equipment, which is expected to see broader adoption as DRAM architecture evolves. Eugene Technology's batch-type epi tools boast a technical advantage in throughput. Beyond this DRAM capex cycle, this equipment is expected to enable a new phase of growth over the longer term.

Park Systems

- This year, Park Systems' 1H is expected to be slow—so results may fall short of the high hopes investors have had for the equipment company. But with a strong 2H, the company should still be able to grow around 20% for the full year. New tools—such as NX-Hybrid WLI and NX-Mask—should contribute greater sales this year, backed by shipments to advanced foundries. Although many believe Park Systems will benefit little from memory capacity expansions—because it focuses on process control—the firm has a well-diversified customer base and enjoys steady orders from DRAM makers.

PSK/PSK Holdings

- Both PSK (a front-end equipment maker) and PSK Holdings (a back-end equipment maker) are seeing strong demand amid the semiconductor boom. Lead times, historically averaged 3-5 months, but they are now extending beyond seven months at both companies, indicating favorable industry conditions. PSK's main product, PR strip, is affordable, so customers place large orders even during technology migrations—meaning the firm benefits from both capacity additions and upgrades. PSK Holdings is also poised for meaningful growth, as foundries and OSAT customers are significantly increasing capex to meet AI-related demand.

Robotis

- Robotis specializes in actuators and has built a comprehensive lineup ranging from ultra-small actuators to quasi-direct drive (QDD) actuators. It has secured global competitiveness thanks to its current-control expertise (which it has accumulated through its long history in the industry).
- The firm has upwardly adjusted its actuator production capacity target to 5m units by end-2031. One-third of this production volume will be allocated to Dynamixel Q, another third to Dynamixel X, and the remaining volume will depend on market demand.
- Alongside Dynamixel Q, the company has secured price competitiveness against low-cost Chinese products by launching a bipedal humanoid robot at an affordable price (in the KRW10m-20m range).

Doosan Robotics

- Market attention is highly focused on Doosan Robotics as the gradual recovery in global automation demand has coincided with its strengthening strategic partnership with Nvidia.
- While quantitative growth continues (thanks to its acquisition of Onexia), the possibility of its business portfolio growing further (through additional M&As) remains intact.
- However, it should remain in the red for the time being due to costs associated with preemptive R&D investments and aggressive workforce expansions. According to guidance, it will move into the black in 2028.

SPG

- As one of only a few companies in Korea that can produce a full range of reducers (covering harmonic, RV, and planetary reducers), it has leveraged its reducer technology to introduce SDD actuators with outstanding heat-control performance.
- The company is focused on acquiring data and advancing its hardware through collaboration with the Korea Institute of Machinery and Materials (KIMM), alongside entering overseas sales channels through global exhibitions.
- It generates stable cash flows, supported by continuous sales growth (to major clients), price hikes (across general-purpose product lines), and robust growth of the overhaul market.

Aei Robot (unlisted)

- The company is securing price competitiveness (cost is the single largest barrier to the commercialization of humanoid robots) by independently developing actuators (which account for 60% of a humanoid robot's manufacturing cost), aiming to sell humanoid robots for USD47,000/unit.
- It demonstrated fully autonomous pick-and-place functionality without being remotely controlled at CES 2026, proving the efficiency and technical maturity of its proprietary data pipeline.
- Aei Robot plans to introduce Alice M (a mobile robot) to factories by end-2028, and then deliver Alice 4 and Alice 5 (both will be bipedal robots) to shipbuilding and construction sites by end-2030, with future plans to expand into the defense sector.

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Samsung Securities

SAMSUNG SECURITIES

Samsung Electronics Bldg., 11, 74-gil,
Seochodae-ro, Seocho-gu, Seoul, Korea 06620
Tel: 02 2020 8000 / www.samsungpop.com

Family Center: 1588 2323

Voice Of Customer: 080 911 0900

For more information,
please call our sales representatives:

LONDON

Samsung Securities Europe Limited
1st Floor, 30 Gresham Street, London EC2V 7PG UK
Tel. 44-207-776-4311
Fax. 44-203-837-9219

NEW YORK

Samsung Securities America Limited
1330 Avenue of the Americas. 10th Floor. New York,
NY 10019
Tel: 1-212-972-2454
Fax: 1-212-972-2704

HONG KONG

Samsung Securities (Asia) Limited
Suite 4511, Two International Finance Center,
8 Finance Street, Central, Hong Kong
Tel: 852-3411-3608
Fax: 852-2114-0290

BEIJING

Samsung Securities Beijing Representative Office
Rm. 910, The Exchange Building No 118 JianGuo Lu, Chao Yang District, Beijing, China
Tel: 86-10-6522-1855 (extension 7891)
Fax: 86-10-6522-1855 (extension 7889)

TOKYO

Samsung Securities Tokyo Representative Office
#106-8532 19F, Roppongi T-Cube 3-1-1,
Roppongi Minato-ku Tokyo, Japan
Tel: 81-3-6333-2952
Fax: 81-3-6333-2953

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